

REMARKS

Claim Rejections - 35 U.S.C. § 103

The Examiner has rejected claims 1-26 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 2003/0139762 to Lee in view of U.S. Patent No. 5,797,878 to Bleam.

Applicants have carefully considered the Examiner's comments. In response, Applicants have amended claims 1, 12-16 and 22 and have canceled claims 5-11, 17-21, 23 and 26. Applicants respectfully submit that the prior art of record does not disclose all of the limitations of Applicants' claims and Applicants' claims would not be readily apparent from the prior art. Therefore, Applicants respectfully submit that the claims are now in condition for allowance.

The claimed invention relates to a medical balloon with enlarged radii at the working length-to-taper transition and the taper-to-neck transition. The enlarged radii provide smooth transitions from the working length to the taper and from the taper to the neck. As a result of the smooth transitions, lower forces are required to withdraw the balloon catheter through a delivery sheath or other conduit. (¶ [0044]). This advantage solves a number of potential problems. Because medical balloons typically do not collapse easily after being inflated and deflated, conventional balloons can be difficult to pull back through a conduit after use. This can make it more difficult for the physician to perceive problems; can result in more trauma to the patient; and can result in the catheter being damaged. (¶¶ [0011], [0044], [0045]). The claimed balloon catheter may overcome these problems because the enlarged radii reduce the force required to withdraw the balloon. (¶ [0044]).

Turning to the prior art of record, neither Lee nor Bleam disclose the enlarged radii claimed by Applicants. While Lee and Bleam generally relate to the problem of high frictional forces during use of the balloon catheter, Lee and Bleam both solve this problem in a different way than Applicants. The solution offered by Lee and Bleam is to change the angle of the taper to make the tapered portions of the balloon more tapered. However, this is not the solution claimed by Applicants. Instead, Applicants have claimed a balloon where the radii at the transitions between the working length and the

taper and between the taper and the neck region are enlarged, irrespective of the angle of the taper. Lee and Bleam do not disclose what the radii are at the transitions of the balloons disclosed in the references. Moreover, any reliance upon the figures of Lee and Bleam would be misplaced. In fact, Applicants note in their specification that the transitions of an inflated balloon may actually look smooth; however when the balloon is deflated, the differences are significant. (¶ [0047]). Moreover, the courts and the Patent Office have repeatedly warned against the use of figures for scaling undefined features. *Nystrom v. Trex Co., Inc.*, 424 F.3d 1136, 1149 (Fed. Cir. 2005) ("The district court erred in not properly applying the principles set forth in our prior precedents that arguments based on drawings not explicitly made to scale in issued patents are unavailing."); MPEP § 2125 ("PROPORTIONS OF FEATURES IN A DRAWING ARE NOT EVIDENCE OF ACTUAL PROPORTIONS WHEN DRAWINGS ARE NOT TO SCALE . . . When the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value.").

Indeed, not only does Lee and Bleam not disclose that the radii may be enlarged at the transitions to reduce the force needed to withdraw the balloon, but Lee and Bleam do not disclose the actual radii that are specified by claims 1, 3-4 and 22-25. These are specific radii that Applicants discovered that are not disclosed or suggested by the prior art. Moreover, the prior art does not disclose or suggest the specific relationships defined in claims 12-16. For example, in claims 14 and 15, the proximal and distal taper-to-neck radii are the same as each other and the proximal and distal working length-to-taper radii are different than the taper-to-neck radii. Additionally, in claim 16 the proximal working length-to-taper radius is different than the distal working length-to-taper radius.

Because Lee and Bleam do not disclose or suggest Applicants' claim limitations as presented, Applicants claims are allowable and the Examiner may withdraw the rejections of the claims.

Conclusion

In response to the Examiner's comments, Applicants have amended claims 1, 11-16 and 22 and have canceled claims 5-11, 17-21, 23 and 26. None of the prior art of record discloses or suggests all of the limitations required by the claims as now presented. Thus, Applicants' claims are allowable. Accordingly, Applicants request reconsideration and allowance of the application.

Respectfully submitted,

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